

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

APPELLANT: Mark P. Kenney EXAMINER: Diem K. Cao
SERIAL NO.: 09/695,549 GROUP: 2126 CONF. NO.: 2567
FILED: 10/24//2000 DOCKET: LIT-106/PRC-147
TITLE: Employment of Instruction in Program Supported by Server Application
to Cause Execution of Program Unsupported by the Server Application

CERTIFICATE OF MAILING

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APPEAL BRIEF

Dear Sir:

This Appeal Brief is submitted (in triplicate) in response to the final Office Action mailed January 26, 2005 in connection with the above-designated application. A Notice of Appeal and a Request for an Extension of Time in which to file the Notice of Appeal were transmitted via facsimile on May 27, 2005. An Appeal Brief is thus due by July 27, 2005. Therefore, this Appeal Brief is timely filed.

REAL PARTY IN INTEREST

The real party in interest is the assignee of the above-identified application, Northrop Grumman Corporation.

RELATED APPEALS AND INTERFERENCES

Appellants, appellants' legal representative, and the assignee of this application do not know of any other appeals or interferences which will directly affect, be directly affected by, or have a bearing on the Board's decision in this appeal.

STATUS OF CLAIMS

Claims 1-14 and 22-25 are pending, finally rejected and subject to this appeal.

STATUS OF AMENDMENTS

No amendments to the claims have been tendered or made following the final Office Action of January 26, 2005.

SUMMARY OF THE INVENTION

Embodiments of the present invention are directed to the execution of programs stored on a server. More specifically, an application program on the server enables the execution of a target program on the server where the name of the target program is received in a format not understood by the application program that resides on the server.

In an exemplary embodiment shown in FIGs. 1 and 2, a World Wide Web server 108 contains a web server application program 109, a facilitation program (Javainit) 112 and a target (Java) program 114. The facilitation program 112 may comprise a script such as a Perl script or

a common gateway interface (CG I) program. The facilitation program 112 enables the execution of target program 114 based on information received from the application program 109.

Characters 215 form a name 217 based on information received by the facilitation program 112 from the application program 109. The name 217 as formed by characters 215 is unrecognized, and hence unsupported, directly by target program 114. The facilitation program 112 converts the form/format of characters 215 of name 217 into characters that form a name 217 having characters that are recognized, i.e. supported, by target program 114. For example, ASCII characters are converted into HTML characters to form a name that the target program 114 will understand/recognize. In this example HTML allows only a subset of the available total set of ASCII characters and hence the received ASCII character set may include characters unsupported/unknown for HTML use.

ISSUES

The issue presented for review on appeal is whether the Examiner erred in rejecting claims 1-14 and 22-25 under 35 U.S.C. §103 as being unpatentable over Broulik et al. (U.S. Patent No. 6,323,881; “Broulik”) in view of Graham “Introduction to HTML” Chapters 8 and 9; “Graham”, and Tan (U.S. Patent No. 6,314,469; “Tan”).

GROUPING OF CLAIMS

Pending claims 1-3, 5-10, 12-14 and 22-25 will stand or fall together. Claims 4 and 11 will stand or fall together.

ARGUMENTS

I. CLAIM 1 IS PATENTABLY DISTINGUISHABLE FROM THE COMBINATION OF THE APPLIED REFERENCES

The invention recited in claim 1 is not rendered obvious based on applied references, considered individually or in combination. With regard to the rejection of claim 1 in the Office Action made final, a server application on server 30 of Broulik and the telecommunication applications 54 are said to correspond to the use of the server application and target program, respectively, recited in claim 1. Claim 1 recites, "the server application and the target program are located on the server...."

As explained in detail below, such steps/structures of Broulik do not meet the limitations of claim 1 and hence do not support a prima facie case of obviousness. A discussion of the Graham and Tan references is not required with respect to this issue since only Broulik is relied upon in the final Office Action for this teaching.

Claim 1 also requires the name of the target program be received by a supported program on the server in a format not understood by the supported program. The name of the target program is converted into a format understood by the supported program and execution of the target program on the server is effected.

As explained in the Background section of the present application, servers typically require an external application server to effect execution of a program having instructions written in a computer language/format that is unsupported by the server application of the server receiving the request. This requirement for a separate, external application server has several

disadvantages pointed-out in the Background section. In fact, Broulik is representative of such prior art construction. It is central to the present invention that the server application and the target program both reside on a common server to eliminate the need for an additional external server to implement the target program.

The problem addressed in Broulik is the difficulty in providing a common craft user interface for communicating with telecommunication switching nodes. Because different telecommunication equipment manufacturers utilize different proprietary communication protocols on their switching equipment, providing a single graphical user interface (GUI) that can communicate with the various switching equipment and different versions thereof is difficult. It is well known to those skilled in the art that craft users (typically telecommunication support personnel) have traditionally used Telnet type terminals directly connected to communications equipment, e.g. central office switches, in order to run diagnostics, collect operational data and enter configuration changes. Broulik provides a web based GUI that supports a craft user interface as shown in FIGs. 2 and 3.

A client-host structure is used in Broulik in which a GUI is provided to craft personnel by using a browser of a personal computer 40. A request from craft personnel is received by a proxy server 26 and forwarded to the local server 30 associated with the telecommunication equipment with which communications is desired. Requests accepted by the server 30 are passed to CGI tasks 34 that in turn provide a communication interface between the protocol of the request and the command line language (CLL) protocol used by the telecommunication applications 54 (see FIG. 3) which reside on the telecommunication equipment. The emulation of the terminal side of the CLL by the CGI tasks automatically starts four CGI tasks 44, 46, 48, 50 at the beginning of each communication session since each of the telecommunication

applications 54 assume it is communicating with a dedicated terminal. A special-purpose session manager 42 is required to manage communications with the craft user in order to make sure that CLL responses to a craft user request are properly associated with the particular request.

Broulik teaches an architecture for each telecommunication node that includes a separate proxy 26, separate server 30, separate CGI task 34 and a separate target program (telecommunication application 54 disposed on separate telecommunication equipment). Neither the CGI tasks nor the telecommunication application 54 are disclosed as being part of server 30. See Broulik, column 3, lines 42-50 (emphasis added):

Referring to FIG. 2, there is illustrated, in a block diagram, a web based GUI server for a telecommunications node in accordance with an embodiment of the present invention. The architecture includes within telecommunications nodes 22 and 24, proxies 26 and 28, respectively, servers 30 and 32, respectively and CGI tasks 34 and 36, respectively. A personal computer (PC) 38 includes a client (browser) 40 and communicates with the telecommunications node 22.

The requirement of claim 1 that the server application and the target program be located on the same server is summarily found to be obvious in the final Office Action by stating "It is noted that co-locating a target program and the server application would have been obvious." This assertion of obviousness is not correct.

It is impractical, if not impossible, to co-locate the target programs (telecommunication applications 54) of Broulik on server 30. The telecommunication applications 54 are required to reside on the telecommunication equipment to provide a communication interface between a dedicated line used by the craft users and the operational data residing on the telecommunications equipment. Hence, removing the telecommunication applications 54 from the telecommunication equipment and co-locating the telecommunication applications on server 30 would defeat the very purpose for which the telecommunication applications are intended, i.e. to facilitate access by the craft users to data residing on the communications equipment.

If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959) Modifying Broulik by co-locating the telecommunication applications 54 from the telecommunications equipment to the server 30 would change the principle of operation. In fact, such a modification would cause the craft communications as discussed in Broulik to be inoperable. Further, the prior art reference (or references when combined) must teach or suggest all the claim limitations. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). Broulik, the only reference relied upon for teaching the subject requirement, does not teach the use of a server application and a target program on the same server. Thus, the suggested modification is not permitted and a *prima facie* case of obviousness of claim 1 has not been made. Reversal of the rejection of claim 1 is requested.

II. CLAIM 8 IS PATENTABLY DISTINGUISHABLE FROM THE COMBINATION OF THE APPLIED REFERENCES

The obviousness rejection of independent apparatus claim 8 is traversed based on the reasons explained above for claim 1.

III. CLAIM 4 IS PATENTABLY DISTINGUISHABLE FROM THE COMBINATION OF THE APPLIED REFERENCES

Claim 4 further requires the step of identifying a directory location of the target program in the server based on the ASCII characters. With regard to the rejection of claim 4 in the Office Action made final, it was stated:

“As to claim 4, Broulik as modified teaches (Tan) identifying a directory location based on (transmit DNS request after conversion). See fig. 1 and col. 3, line 61 – col. 4, line 30; col. 9, lines 53-65; col. 11, lines 29-45.”

Applicant traverses that Broulik as modified by Tan renders the requirements of claim 4 obvious.

In accordance with Tan an international DNS (domain name system i DNS 16) receives an address in a language that requires conversion, transmits a conversion request to an associated DNS server 18, and receives back the converted address in an appropriate language suited for http usage by the user's PC 12. The converted address is returned to the originating user's PC 12 that then transmits the converted address suited for http usage to a destination node 14 for such usage. Even in view of the teachings of Tan, one of ordinary skill the art would not understand it as teaching the identification of a "directory location of the **target program in the server**" based on ASCII characters. Even after the conversion by Tan of the address into an ASCII character set, the converted address does not identify a directory location of any program on server 16 or 18. The converted address represents an http address somewhere in the network, but not a directory or location in server 18 or in server 16. The converted address received from server 18 is merely relayed by server 16 to the user's computer 12 for use by the latter. The relayed http address in accordance with Tan does not teach or suggest, alone or in combination with Broulik, the identification of a directory location of the target program in the server as required accordance with claim 4.

In the Advisory Action of March 28, 2005 the Examiner further addressed this issue (point 3) by stating:

As to point 3, although Broulik does not explicitly teach identifying a directory location of the target program in the server, the CGI tasks send and receive request/result data from the target application. It would have been obvious the location of the target program is identified in order for the CGI task

communicate with the target program based on the request. The teaching of Tan is to clearly show the teaching of the limitation.

It is agreed that Broulik does not teach identifying a directory location of the target program in the server.

Although the CGI tasks of Broulik send requests and receive resulting data from the target program (telecommunication applications 54), this premise does not result in the conclusion that a directory location of the target program is identified in order for the CGI task to communicate with the target program. It must be remembered that the telecommunication applications 54 (target program) in Broulik reside on the telecommunication equipment and are coupled by a predetermined communication line using a command line language protocol anticipating that a Telnet terminal is connected thereto. Because of this dedicated arrangement, the telecommunication application 54 is not associated with a “directory location” but only with predetermined communication line. A CGI task communicates with a telecommunication application 54 by using the predetermined communication access line. A directory location of the telecommunication application 54 is not needed by the CGI task in order for the latter to communicate with the telecommunication application. Hence, it is not implicit or inherent in Broulik that a directory location of the target program (telecommunication application) be known in order for the CGI tasks to be able to communicate with it. Therefore, the reasoning offered in the Advisory Action based on the teachings of Broulik does not establish prima facie support for a rejection of obviousness.

The teachings of Tan relating to this issue have been discussed above and are shown not provide the required teaching of claim 4.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on appellant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

As explained above regarding the rejection of claim 4 based on the applied references Broulik and Tan, neither reference provides a teaching of the required limitation. Therefore, combining references, none of which provide a required teaching, cannot render such subject matter obvious. Reversal of the rejection of claim 4 is requested.

IV. CLAIM 11 IS PATENTABLY DISTINGUISHABLE FROM THE COMBINATION OF THE APPLIED REFERENCES

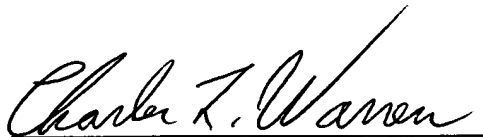
The obviousness rejection of apparatus claim 11, which is similar to method claim 4, is traversed based on the reasons explained above for claim 4.

CONCLUSION

Appellants submit that the Examiner has failed to meet the burden of establishing obviousness for the invention recited in claims on appeal. For all the above reasons, claims 1-14

and 22-25 are believed to be nonobvious over the art of record. It is respectfully requested that the Board reverse the decision of the Examiner in all aspects.

Respectfully submitted,

A handwritten signature in cursive script, reading "Charles L. Warren", written in black ink. The signature is positioned above a horizontal line.

Charles L. Warren
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Reg. No. 27,407

Dated: July 20, 2005

PATTI & BRILL, LLC
Customer Number 32205

APPENDIX

1. A method implemented by a server comprising the steps of:
receiving first information having at least a first instruction, names, and location indicators at the server to execute a target program that is unsupported by a server application, wherein the names identify the server application and the target program where both the server application and the target program are located on the server, and wherein the location indicators serve to locate the server application and the target program, and wherein the name of the target program is received in a format not understood by a supported program residing on the server;
and
employing a second instruction in the supported program residing on the server to convert the name of the target program into a format understood by the supported program and causing execution of the target program, wherein the second instruction is based on the first instruction, wherein the supported program is supported by the server application.
2. The method of claim 1, further comprising the step of parsing the received names to identify the name of the target program.
3. The method of claim 2, wherein the step of parsing comprises the step of converting character codes representing the name of the target program as received by the server application into ASCII characters.
4. The method of claim 3 further comprising the step of identifying a directory location of the target program in the server based on the ASCII characters.
5. The method of claim 1, wherein the step of employing the second instruction in the supported program to cause execution of the target program comprises the steps of:
determining an output of the target program; and
sending the output to the supported program.

6. The method of claim 1, wherein the step of employing the second instruction in the supported program to cause execution of the target program comprises the step of selecting the supported program to comprise a common gateway interface program.

7. The method of claim 1, wherein the step of employing the second instruction in the supported program to cause execution of the target program comprises the step of modifying the first instruction to obtain the second instruction.

8. A server, comprising:

a component that receives first information having at least a first instruction, names, and location indicators to execute a target program that is unsupported by a server application, wherein the names identify the server application and the target program where both the server application and the target program are located on the server, and wherein the location indicators serve to locate the server application and the target program, and wherein the name of the target program is received in a format not understood by a supported program residing on the server; and

a component that employs a second instruction in the supported program to convert the name of the target program into a format understood by the supported program and causing execution of the target program, wherein the second instruction is based on the first instruction, wherein the supported program is supported by the server application.

9. The server of claim 8, further comprising a parsing component that parses the received names to identify the name of the target program .

10. The server of claim 9, wherein the parsing component comprises a component that converts character codes representing the name of the target program as received by the server application into ASCII characters.

11. The server of claim 10 further comprising a component that identifies a directory location of the target program in the server based on the ASCII characters.

12. The server of claim 8, wherein the component that employs the second instruction in the supported program to cause execution of the target program comprises:

- a component that determines an output of the target program; and
- a component that sends the output to the supported program.

13. The server of claim 8, wherein the component that employs the second instruction in the supported program to cause execution of the target program comprises a component that selects the supported program to comprise a common gateway interface program.

14. The server of claim 8, wherein the component that employs the second instruction in the supported program to cause execution of the target program comprises a component that modifies the first instruction to obtain the second instruction.

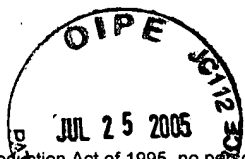
Claims 15 – 21 are canceled.

22. The method of claim 1 wherein the target program is a JAVA program contained on the server.

23. The method of claim 4 wherein the step of identifying the directory location of the target program comprises identifying the directory location of a JAVA program that is the target program.

24. The server of claim 8 wherein the target program is a JAVA program contained on the server.

25. The server of claim 11 wherein the identifying component identifies the directory location of a JAVA program that is the target program.



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FEE TRANSMITTAL for FY 2004

Effective 10/01/2003. Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$) 500.00

Complete if Known

Application Number 09/695,549
Filing Date 10/24/2000
First Named Inventor Mark P. Kenney
Examiner Name Diem K. Cao
Art Unit 2126
Attorney Docket No. LIT-106/PRC-147

METHOD OF PAYMENT (check all that apply)

☐ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None

☒ Deposit Account:

Deposit Account Number 50-1941

Deposit Account Name Patti & Brill LLC

The Director is authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☒ Credit any overpayments

☒ Charge any additional fee(s) or any underpayment of fee(s)

☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.

FEE CALCULATION

1. BASIC FILING FEE

Large Entity		Small Entity		Fee Description	Fee Paid
Fee Code	Fee (\$)	Fee Code	Fee (\$)		
1001	770	2001	385	Utility filing fee	
1002	340	2002	170	Design filing fee	
1003	530	2003	265	Plant filing fee	
1004	770	2004	385	Reissue filing fee	
1005	160	2005	80	Provisional filing fee	

SUBTOTAL (1) (\$)

2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

	Extra Claims	Fee from below	Fee Paid
Total Claims	-20** =	X	
Independent Claims	-3** =	X	
Multiple Dependent			

Large Entity		Small Entity		Fee Description
Fee Code	Fee (\$)	Fee Code	Fee (\$)	
1202	18	2202	9	Claims in excess of 20
1201	86	2201	43	Independent claims in excess of 3
1203	290	2203	145	Multiple dependent claim, if not paid
1204	86	2204	43	** Reissue independent claims over original patent
1205	18	2205	9	** Reissue claims in excess of 20 and over original patent

SUBTOTAL (2) (\$)

**or number previously paid, if greater; For Reissues, see above

FEE CALCULATION (continued)

3. ADDITIONAL FEES

Large Entity Small Entity

Fee Code	Fee (\$)	Fee Code	Fee (\$)	Fee Description	Fee Paid
1051	130	2051	65	Surcharge - late filing fee or oath	
1052	50	2052	25	Surcharge - late provisional filing fee or cover sheet	
1053	130	1053	130	Non-English specification	
1812	2,520	1812	2,520	For filing a request for ex parte reexamination	
1804	920*	1804	920*	Requesting publication of SIR prior to Examiner action	
1805	1,840*	1805	1,840*	Requesting publication of SIR after Examiner action	
1251	110	2251	55	Extension for reply within first month	
1252	420	2252	210	Extension for reply within second month	
1253	950	2253	475	Extension for reply within third month	
1254	1,480	2254	740	Extension for reply within fourth month	
1255	2,010	2255	1,005	Extension for reply within fifth month	
1401	330	2401	165	Notice of Appeal	
1402	330	2402	165	Filing a brief in support of an appeal	500.00
1403	290	2403	145	Request for oral hearing	
1451	1,510	1451	1,510	Petition to institute a public use proceeding	
1452	110	2452	55	Petition to revive - unavoidable	
1453	1,330	2453	665	Petition to revive - unintentional	
1501	1,330	2501	665	Utility issue fee (or reissue)	
1502	480	2502	240	Design issue fee	
1503	640	2503	320	Plant issue fee	
1460	130	1460	130	Petitions to the Commissioner	
1807	50	1807	50	Processing fee under 37 CFR 1.17(q)	
1806	180	1806	180	Submission of Information Disclosure Stmt	
8021	40	8021	40	Recording each patent assignment per property (times number of properties)	
1809	770	2809	385	Filing a submission after final rejection (37 CFR 1.129(a))	
1810	770	2810	385	For each additional invention to be examined (37 CFR 1.129(b))	
1801	770	2801	385	Request for Continued Examination (RCE)	
1802	900	1802	900	Request for expedited examination of a design application	

Other fee (specify)

*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$) 500.00

SUBMITTED BY

Name (Print/Type) Charles L. Warren Registration No. 27,407 Telephone 630-584-9206
Signature *Charles L. Warren* Date 7/20/05

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